

Problem Omogen

Input file `stdin`
Output file `stdout`

A sequence (i, j) with elements a_i, a_{i+1}, \dots, a_j is homogeneous if, for any two chosen positions x and y with $x \neq y$, the elements a_x and a_y are coprime.

You are given a sequence of length n with nonzero positive integers. Determine the number of its homogeneous subsequences.

Input Data

The first line will contain the number n , representing the length of the sequence. The second line will contain the n values of the sequence a , separated by spaces.

Output Data

The first line of the output file will contain the number of homogeneous subsequences of the sequence.

Restrictions

- $1 \leq N \leq 1000000$.
- $1 \leq a_i \leq 10^7$, for $i \in [1, n]$.

#	Points	Restrictions
1	18	$1 \leq N \leq 2000$
2	43	$1 \leq N \leq 200000, 1 \leq a_i \leq 2000000$
3	39	No additional restrictions.

Examples

Input file	Output file
8 7 2 4 2 1 5 1 1	19

For example, one of the 19 homogeneous sequences is $[2, 1, 5]$ because $\gcd(2, 1) = 1$, $\gcd(2, 5) = 1$, and $\gcd(1, 5) = 1$.

On the other hand, the sequence $[4, 2, 1]$ is not homogeneous because $\gcd(4, 2) = 2$.